SHEET 1 OF 13

ATTY, DOCKET NO. SERIAL NO. 061282-0234 10/574.863 INFORMATION DISCLOSURE STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) GROUP FILING DATE April 06, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Publication Date Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS MO MM-DD-YYYY Number-Kind Code2 (1 Annu Document Relevant Passages or Relevant Figures Appear 5.561.072 10-01-1996 SAITO US ŪS 6 465 727 FIZ 10-15-2002 MARUYAMA et al. 6.653.699 11-2003 YANG, JEONG-HWAN 2005/0227463 10.2005 US 6.713.819 B1 03/30/2004 En et al. FOREIGN PATENT DOCUMENTS Publication Date | Name of Patentee or Applicant of EXAMINER'S Foreign Patent Document Pages, Columns, INITIALS Cited Document CITE Country Codes-Number «-Kind Codes (if known) MM-DD-YYYY Lines Where Vac No Relevant Figures NO Annear 07-31-1997 JP 9-199719 TOSHIBA CORP JP 5-206045 08-13-1993 HITACHI I TD JP 58-97863 06-10-1983 TOSHIBA CORP WO 98/34268 08-06-1998 ULTRATECH STEPPER INC JP 6-310533 11-04-1994 **FUJITSU LTD** OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE published International Search Report corresponding to application no. PCT/JP2004/001473 dated April 13, 2004 D. Lenoble et al., "Reliable and enhanced performances of sub-0.1 µm pMOSFETs doped by low biased Plasma Doping", 2000 Symposium on VLSI Technology Digest of Technical Papers, IEEE, pp. 110-1111, 2000. Y. Kiyota, "Surface Reaction Doping using Gas Source for Ultra Shallow Junctions", Japan Society of Applied Physics, 2000. Y. Kiyota, et al., "Role of hydrogen during rapid vapor-phase doping analyzed by x-ray photoelectron spectroscopy and Fourier-transform infrared-attenuated total reflection", Journal of Vacuum Science and Technology A 16 (1), pp. 1-5, Jan/Feb 1998. Y. Kiyota, "Surface Reaction Doping using Gas Source for Ultra Shallow Junction", Silicon Technology No. 39, pp. 9-11, June 2002. Y. Sasaki et al., "Gas Phase Doping at Room Temperature", Extended Abstracts of International Workshop on Junction Technology, pp. 39-40, 2002. Y. Sasaki et al., "B₂H₆ Plasma Doping with "In-situ He Pre-amorphization", 2004 Symposium on VLSI Technology Digest of Technical Papers, pp. 180-181.

03/11/2010 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applican

EXAMINER

/George Fourson/

DATE CONSIDERED

Chinese Office Action issued in corresponding Chinese Patent Application No. CN 2004800046349. mailed March 30, 2007.

¹ Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached WDC99 1538509-1.061282.0234

SHEET 2 OF 13 ATTY, DOCKET NO. SERIAL NO. 061282-0234 10/574.863 INFORMATION DISCLOSURE STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. FILING DATE (Substitute for form 1449/PTO) GROUP April 06, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Publication Date Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS NO. MM-DD-YYYY Document Number-Kind Code2 gramme Relevant Passages or Relevant Figures Appear 2006/0205192 09/2006 Walther et al US US 5 969 398 10/1999 Murakami 6.051.482 04/2000 Yang US 5,897,346 04/1999 Yamaquchi et al us US ÚS US 115 US US US US US FOREIGN PATENT DOCUMENTS EXAMINER'S Foreign Patent Document Publication Date Name of Patentee or Pages, Columns, Lines Translation INITIALS Country Codes - Number 4 - Kind Applicant of Cited Document Where Relevant CITE MM-DD-YYYY Codes (if known) Yes No Figures Appear JP 9-17867 01/17/1997 NKK Corp. OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE NO. published. US Patent Application Serial No. 11/153,572 US Patent Application Serial No. 11/819,567

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered.

ITO, T., et al., "Improvement of Threshold Voltage Roll-off by Ultra-shallow Junction Formed by Flash Lamp Annealing", 2003, Symposium on VLSI Technology Digest of Technical Papers.

DATE CONSIDERED

03/11/2010

Include copy of this form with next communication to applicant.

FXAMINER

/George Fourson/

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 3 OF 13

			ON DISCLOSE BY APPLICA		ATTY. DOCKET NO. 061282-0234	Serial No. 10/574,863			
					APPLICANT Yuichiro SASAKI, et	al.			
	(Sub:	stitute	for form 1449/PTO)		FILING DATE April 6, 2006		GROUP 2823		
			U	S. PATENT	DOCUMENTS				
EXAMINER'S INITIALS	CITE NO.		Document Number mber-Kind Code2 (Flavouri)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of C Document	ited	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		US	OTUEDA	OT (Including Author	Title, Date, Pertinent Pages, Etc.)				
EXAMINER'S		Linelii			title of the article (when appropriate), ti	tlo of the	tom these managing		
INITIALS	CITE NO.	journ	ial, serial, symposium, cata shed.	alog, etc.), date, page	(s), volume-issue number(s), publisher,	city and	or country where		
		YAMASHITA, F., et al., "Direct Joule Heating of Nd-Fe-B Based Melt-Spun Powder and Zinc Binder", 1999, IEEE.							
		CHU, P.K., et al., "Part one of two, Pissma Dopting: Progress and potential", SQLID STATE TECHNOLOGY, Speciment 1999, pages 5-69, www.scildstate.com. CHU, P.K., et al., "Part two of two, Pissma Dopting: Progress and potential", SQLID STATE TECHNOLOGY, October 1999, pages 77 42, www.scild-state.com.							
		HORI, A., et al., "CMOS Device Technology toward 50 nm Region – Performance and Drain Architecture – ", IEDM, 1999, pages 641-644, IEEE.							
		KWOK, DIXON TK., et al., "Energy distribution and depth profile in BF, pissma doping", SURFACE AND COATINGS TECHNOLOTY, 2001, pages 14-615, vol. 136, Elsevier Science St. YAMASHITA, F., et al., "Nd-F-B Thin Arc-shaped Bonded Magnets for Small DC Midors Propared by Powder Compacting Press with Inch-implanted Punches", J. MON SOC. JAPA, 2001, pages 853-86, Vol. 25 No. 4-2.							
		YAMASHITA, F., et al., "Preparation of a Solid Rotor Composed of a Highly Dense Ring-Shaped RE Bonded Magnet and an iron-Dust Core", TRANS. MAGN. SOC. JAPAN., 2002, pages 111-114, Vol. 2 No. 3.							
		1	MIZUNO, B., "Ultra Shallow Junction for sub-50NM CMOS – The role of Plasma Doping- ", UJTLab, pages 10-13, Ultimate Junction Technologies Inc.						
		SASAKI, Y., et al., "ByH, Plasma Doping with in-situ ité Pre-amorphization", "SYMPOSIUM DN VLS TECHNOLOGY DIGEST OF TECHNICAL PAPERS, 2004, pages 160-181, IEEE. SASAKI, Y., et al., "Flasma Doped Shallow Junction Formation," MATSUSHITA TECHNICAL JOURNAL, December 2004, pages 40-409, Vol. 59 No. Br. TECHNICAL JOURNAL, December 1504-180, Vol. 180, Vol. 180							
		MIZ	Hole", JOURNAL OF	THE PHYSICAL SOC	lighly-Excited Self-Trapped Exciton a CIETY OF JAPAN, June 1983, pages	1901-190	3, Vol. 52 No. 6.		
			rmation", JOURNAL OF	THE PHYSICAL SOC	tion of Self-Trapped Excitons in RbC CIETY OF JAPAN, September 1986, p	ages 325	58-3271, Vol. 55 No. 9.		
			Implantation", pages	537-640, Semicondu	ygen Removal from Silicon-Overlay ctor Research Center, Matsushita El	ectric In	dustrial Co., Ltd.		
		FU	JITA, T., et al., "Electron JOURNAL	Paramagnetic Reso OF APPLIED PHYS	nance Studies of Defects in Oxygen ICS, July 1987, pages L1116-L1118,	Implante	ed Silicon", JAANESE lo. 7.		
		-	AMINER			ONSIDE	RED		
		/Ger	orge Fourson/		03/11/2010				

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through clatton if not in conformance and not considered, include copy of this form with next communication to applicant.

1 Applicant is unjudy existent designation number (opionois) 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 4 OF 13

		TION DISCLOSENT BY APPLIC		ATTY. DOCKET NO. 061282-0234 APPLICANT	SERIAL NO. Serial No. 10/574,86	13			
				Yuichiro SASAKI, et					
	(Sub	stitute for form 1449/PTO)		FILING DATE April 6, 2006	GROUP 2823				
			U.S. PATENT	DOCUMENTS					
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Codes (#Ancount	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document Pages, Columns, Lin Relevant Passages o Figures Appe					
		US	1070 1 5 1 1						
EXAMINER'S				Title, Date, Pertinent Pages, Etc.) title of the article (when appropriate), ti	tle of the item (hook manazine				
INITIALS	CITE NO.			(s), volume-issue number(s), publisher,					
		MIZUNO, B., et al., "Effective removal of oxygen from Si layer on burned oxide by implantation of hydrogen", J. APPL PHYS., September 1987, pages 2568-2568, Vol. 62 No. 6.							
		MIZUNO, B., et al., "New doping method for subhalf micron trench sidewalls by using an electron cyclotron resonance plasma", APPL PHYS. LETT., November 1988, pages 2059-2051, Vol. 63 no. 21, American institute of Physics. SHINIZU, N., et al., "Reduction of Thickness Secondary Defects in MeV Ion impatted Silicon by Intrinsic Gettering", EXTENDED ABSTRACTS OF THE 21ST CONFERENCE ON SOLID STATE DEVICES AND MATERIALS, TOKYO, 1989, pages 177-180. HORI, A., et al., "A 0.59 Im-CMOS with Ultra Shallow SourceOrpain Junctions Fabricated by 5KeV Ion Implantation and Pages 465-488, EOD.							
		HORI, A., et al., "Fabrication and Characteristics of a Room Temeprature 0.05 µm-CMOS – Possibility and Design Concept of Sub-0.1 µm MOS Devices-, TECHNICAL REPORT OF IEICE, 1995, pages 41-48, THE INSTITUTE OF ELECTRONICS, INFORMATION AND COMMUNICATION ENGINEERS.							
		MIZUNO, B., et al. "Plasma doping for silicon", SURFACE AND COATINGS TECHNOLOGY, 1996, pages 51-55, Vol. 85, Elsevier Science S.A.							
		MIZUNO, B., et al., "Plasma Doping of Boron for Fabricating the Surface Channel Sub-quarter micron PMOSFET", SYMPOSIUM ON VLSI TECHNOLOGY DIGEST OF TECHNICAL DIGEST OF TECHNICAL PAPERS, 1996, IEEE.							
		TAKASE, M., et al., "An evaluation method for a high concentration profile produced in very low energy doping processes", NUCLEAR MISTRUMENTS AND METHODS IN PHYSICS RESEARCH, 1997, pages 288-299, Vol. 121, Elsevier Science BJ., and the profile produced in very low energy doping processes, and the profile profile profile by the profile profi							
		MIZUNO. B., et al., "Plas	na Doping and Plasm 997, pages 345-950, V	a-Less Doping of Semiconductor", M ol. 438, MATERIALS RESEARCH SO	AT. RES. SOC. SYMP. PROC., CIETY.				
		TAKASE, M., et al, "New D	oping Technology-Pla	sma Doping – for Next Generation CI contamination issues -", 1997, pabe	MOS process with Ultra Shallow				
	-	TAKASE, M., et al., "Shallo	w Source/Drain Exten	sions for pMOSFETs with High Activ Doping", IEDM, 1997, pages 475-478,	ation and Low Process Damage				
				copy (HX-PES) study on chemical bi ation of advanced ULSi devices", 200					
		EXAMINER			ONSIDERED				
	/	George Fourson/		03/11/2010					

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered

Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 5 OF 13 ATTY, DOCKET NO. SERIAL NO 061282-0234 INFORMATION DISCLOSURE Serial No. 10/574.863 STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) FILING DATE GROUP April 6, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Occument Number Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS MM-DD-YYYY Relevant Passages or Relevant NO Number-Kind Codes are Figures Appear US OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, EXAMINER'S INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE NO MIZUNO, B., et al., "Plasma Doping and Subsequent Rapid Thermal Processing for Ultra Shallow Junction Formation", 13TH IEEE International Conference on Advanced Thermal Processing of Semiconductors - RTP, 2005, IFFE MIZUNO, B., et al., " Plasma Doping", 2004, pages 423-427, IEEE. SASAKI, Y., et al., "Gas Phase Doping at Room Temperature", Extended Abstract of International Workshop on lunction Technology, 2002, pages 39-40, Japan Society of Applied Physics SASAKI, Y., et al., "Helicon Wave Plasma Doping System", Extended Abstract of International Workshop on Junction Technology, 2002, pages 37-38, Japan Society of Applied Physics. JIN, C.G., et al., "Estimation of Ultra-Shallow Plasma Doping (PD) Layer's Optical Absorption Properties by Spectroscopic Ellipsometry (SE)", 2004, Pages 102-103, IEEE. SHIMIZU, N., et al., "Secondary Defect Reduction by Multiple MeV Boron fon Implantation", Extended Abstract of the 22nd (1990 International) Conference on solid State Devices and Materials, Sendal, 1990, pages 449-452. SASAKI, Y., et al., "New method of Plasma doping with in-situ Helium pre-amorphization", Nuclear instruments and Methods in Physics Research B 237, 2005, pages 41-45, ELSEVIER B.V. JIN, C.G., "Ultra shallow p*/n junction formation by plasma doping (PD) and long pulse all solid-state laser annealing (ASLA) with selective absorption modulation", Nuclear Instruments and Methods in Physics Research B 237, 2005, pages 58-61, ELSEVIER B.V. MIZUNO, B., et al., "Plasma Doping and Plasma-Less Doping for SI: Application to the sub-quarter micron Surface Channel PMOSFET and Solid Plasma Source Application for Safety Operation", Semiconductor Research Center, Matsushita Electric Industrial Co., Lindustrial Co., Lindu LIU, H., et al., "A New Plasma-Aided Solid-Source Implantation Method for Ultra-Shallow p+/n Junction Fabrication", Engineering Research Center for Plasma-Aided Manufacturing, University of Wisconsin-Madison.

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

MZUNO, B., "Plasma Doping into the Side-Wall of a Sub-8.5 pm Width Trench", Extended Abstracts of the 19th Conference on Solid State Devices and Materials, 100, 1987, pages 195-322.

MZUNO, B., "Plasma Doping Technology", Applied Physics, 2001, pages 1468-1462, Vol. 70.

TAKASE, M., et al., "Plasma Doping", TECHNICAL, REPORT OF IDECE, 1988, The Institute of Electronics, Information and Communication Engineers.

MZUNO, et al., "Ultralow Energy Doping Plasma Doping", Special Issue – Currently Developed Ion Engineering Technology-1.

MZUNO, B., et al., "Plasma Based Ion Implantation – Plasma Oping", High Temperature Science Journal, May 1989, pages 114-120, Vol. 3 No. 2

EXAMINER

/George Fourson/

DATE CONSIDERED

03/11/2010

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 6 OF 13

						SHEET 6 OF _		
		TION DISCLOSI		ATTY. DOCKET NO. 061282-0234	SERIAL NO. Serial No. 10/574,863			
				APPLICANT Yuichiro SASAKI, et	al.			
	(Sub:	stitute for form 1449/PTO)		FILING DATE April 6, 2006	GROUP 2823			
		U	.S. PATENT	DOCUMENTS	·			
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code2 (# ##################################	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of C Document-	Relevan	Columns, Lines, Where at Passages or Relevant Figures Appear		
		US						
				Title, Date, Pertinent Pages, Etc.)				
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in journal, serial, symposium, cata published.	CAPITAL LETTERS), alog, etc.), date, page	title of the article (when appropriate), ti (s), volume-issue number(s), publisher,	tie of the item (book city and/or country	, magazine, where		
		TATSUMI, T., et al., "Multile	vel Interconnection Silicon Systems Re	Technology using Fluorinated Amor search Laboratories, NEC Corporation	phous Carbon film on.	s", 3p-ZX-3,		
		MIZUNO. B., et al., "Plasma doping for fabricating ultra shallow junction, 3p-ZX-4, Matsushita Electric industrial Co., Ltd.						
		ODA, H., et al., "Demand for Junction Technology in CMOS Transistors", 27a-ZL-1, 49th Applied Physics Lecture Series – Lecture Manuscripts, Comprehensive Lectures within the Area, 2002, Tokal University.						
		MIZUNO, B., et al., "Junction Technologies: Status Quo and Perspectives", 27a-ZL-2, Comprehensive Lectures within the Area.						
		HATA, N., et al., "Characterization of Low-k Dielectrics by Z-ray Scattering- Anisotropy in Pore Diameter and its Suppression", 28p-M-19, 63rd Applied Physics Lecture Series – Lecture Manuscripts, 2002, Nilgaka University.						
		SHIMANUKI, J., et al., "Behavior of pores in a thin low-k film during anneal – Ex-situ TEM observation method", 26p- M-20.						
		SASAKI, Y., et al., "In-situ Beam Current Monitor for ion implanter", 25a-G-1, pages 768.						
		HIGAKI, R., et al., "Plasma Doping and Plasma Assisted Gas Doping", 25a-G-2, 63rd Applied Physics Lecture Series - Lecture Manuscripts, 2002, Nilgaka University.						
		KUROSAWA, J., et al., "Development of Ni-B-P-Pt type liquid metal ion source for formation of Ni-nano dopant array by single ion implantation", 25a-G-3, 63rd Applied Physics Lecture Series – Lecture Manuscripts, 2002, Nilgaka University.						
		IMAMURA, K., et al., "Development of key-techniques for co-doping of acceptor and donor by single ion Implantation", 25a-G-4, 63rd Applied Physics Lecture Series – Lecture Manuscripts, 2002, Nilgaka University.						
		YAMASHITA, K., et al., "Development of Flash Lamp Annealer for 300mm Wafers", 29p-ZW-10, 50th Applied Physiscs Lecture Series – Lecture Manuscripts, 2003, Shinagawa University.						
		KUBO, Y., et al., "Developme	nt of advance single Lecture Manus	e ion implantor", 29p-ZW-11, 50th Ap cripts, 2003, Shinagawa University.	plied Physiscs Lec	ture Series -		
		HIGAKI, R., et al., "Dose Control of gas Phase Doping at Room Temperature" 29p-ZW-12, 50th Applied Physiscs Lecture Series - Lecture Manuscripts, 2003, Shinagawa University.						
		AKAMA, S., et al., "The Surfa Applied Phys	ice Reaction mecha iscs Lecture Series	nism of Gas Phase Doping at Room - Lecture Manuscripts, 2003, Shinag	Temperature", 29p awa University.	-ZW-13, 50th		
		SASAKI, Y., et al., "Behavior Physiscs	of H and contamin Lecture Series – Le	ation in the Plasma Doping (PD) procecture Manuscripts, 2003, Shinagawa	ess", 29p-ZW-14, 8 University.	0th Applied		
	100	KUROBE, K., et al., "Ultra-sh 50th Applied Ph	allow n+/p Junction systems Lecture Seri	Formation by Heat-assisted Excime es – Lecture Manuscripts, 2003, Shin	Laser Annealing" agawa University.	, 29p-ZW-15,		
		EXAMINER /George Fourson/		03/11/2010	ONSIDERED			

EXAMINER: Initial if reterence considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicants unquice citation designation number options of 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 7 OF 13 ATTY, DOCKET NO. SERIAL NO INFORMATION DISCLOSURE 061282-0234 Serial No. 10/574,863 STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) FILING DATE GROUP April 6, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Document Number Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS NO MM-DD-YYYY Document Relevant Passages or Relevant Number-Kind Codes of Arrow Figures Appear US OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, INITIALS CITE journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where nublished NO FUJINAMI, M., et al., "Research in Pores and Oxygen Compound Deficits in Si Due to the Positron Annihilation Coincidence Doppler Broadening Method, Positron Annihilation Coincidence Doppler Broadening Methods for Vacancy-Oxygen Complexes in Si", 1a-A-8, 46th Applied Physics Lecture Series – Lecture Manuscripts, 2003. Fukuoka University. MIYAGOE, T., et al., "Behavior Research on Deficits in Noble Gas Ion Implanted SI Using a Positron Beam, Positron beam study of defects induced by noble gas implanted SI", 1a-A-9, 64th Applied Physics Lecture Series – Lecture Manuscripts, 2003, Fukuoka University. HIGAKI, R., et al., " Effects on the Substrate Surface conditions with Gas Doping Having Used Plasma Preprocessing, Effects of substrate surface condition on gas-phase doping using plasma pretreatment", 1a-A-10, 64th Applied Physics Lecture Series – Lecture Manuscripts, 2003, Fukuoka University. ITOH, H., et al., "Ultra-low energy ion implantation in SI II", 30p-ZQ-9, Preprints of the 67th Meeting of the Japan Society of Applied Physics, 2006, Ritsumelkan University. MATSUDA, T., et al., "Spike RTA Induced Changes in Chemical Bondings and Their Depth Profile of Plasma-doped Boron", 30p-ZQ-10, Preprints of the 67th Meeting of the Japan Society of Applied Physics, 2006, Ritsumelken University. TANAKA, Y., et al., "8nm (5E18cm") Ultra Shallow Junction Formation by Double-Pulsed Green Leser Annealing" 30p-ZQ-11, Preprints of the 67th Meeting of the Japan Society of Applied Physics, 2006, Ritsumelkan University. HAYA, A., et al., "Surface Modification of Plastic Substrate by Atomic Hydrogen Anneal and Effect of AHA to Film Deposition", 29p-SM-1, Preprints of the 54th Meeting of the Japan Society of Applied Physics and Related Societies, 2007, Aoyama Gakuln University. OHASHI, Y., et al., "Effects of Hydrogenation on Chemical Activity of Defects in Polycrystalline Silicon Thin films", 29p-SM-2, Preprints of the 54th Meeting of the Japan Society of Applied Physics and Related Societies, 2007, Aoyama Gakuln University. WATANABE, M., et al., "Study of Activated Boron Depth Profiles and Ultra-Shallow P+ Layers Formed by Plasma Doping Method", 29p-SM-3, Preprints of the 54th Meeting of the Japan Society of Applied Physics and Related Societies, 2007, Aoyama Gakuin University ISHIBA, T., et al., "Lattice Strains in High Energy Ion Implated Silicon Subjected to Thermal Annealings", 27a-SN-13. SHIMIZU, N., et al., "Secondary Defect Reduction of Multiple MeV Ion Implatation (II)", 27a-SN-14. NAKATA, J., "The Low-Temperature Crystallization and Amorphization Mechanism of Amorphous SI by High Energy Heavy-Ion Beam Irradiation", 27a-SN-15. MATSUMOTO, M., "The Influence of Pre-oxidation Cleaning on Growth of Oxide Film (II)", 28a-D-1. UCHIDA, H., et al., "Influence of Cleaning methods on Dielectric Breakdown in Thin Sio," 28a-D-2. TAKIYAMA, M., et al., "Electrical Characteristics of AI MOS Diode Contaminated with Cu-l", 28a-D-3. EXAMINER DATE CONSIDERED /George Fourson/ 03/11/2010

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

	EME	TION DISCLOSI NT BY APPLICA		ATTY. DOCKET NO. 061282-0234	1			
	(Subs				SERIAL NO. Serial No. 10/574,863			
	(Subs			APPLICANT Yuichiro SASAKI,	et al.			
		stitute for form 1449/PTO)		FILING DATE April 6, 2006	GRC 282			
		U	S. PATENT	DOCUMENTS				
XAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code _{2 (FR00Ms)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Document	of Cited	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear		
		US						
		OTHER A	RT (Including Author,	Title, Date, Pertinent Pages, Etc.)				
XAMINER'S INITIALS	CITE NO.			title of the article (when appropriate (s), volume-issue number(s), publish				
		SHIMIZU, N., et al., "Secondary Defect Reduction of Multiple MeV ion Implantation (III)", 31a-X-5.						
		KIMOTO, K., et al., "Rapid Thermal Annealing for High-energy Ion Implanted Si (V)" 31a-X-6.						
		KOYAMA, Y., et al., "Rapid Thermal Annealing for High-energy Ion Implanted Si (VI)" 31a-X-7.						
		SUZUKI, H., et al., "Preamorphization by si Double ton Implantation", 9p-C-12.						
		TAKAMATSU, H., et al., "Evaluation of Anneal Effect by Photoacoustic Displacement Measurement", 9p-C-13. SHIMIZU, N., et al., "Effects of Junction Leakage Current Reduction of Additional High Energy SI Ion Implantation".						
		SHIMIZU, N., et al., "Effects	of Junction Leakage	9p-C-14.	High Ener	gy SI Ion Implantation",		
		KATSUMOTO, M., et al., "The Effect of NH40H/H202 Cleaning on C-V Characteristics of MOS Capacitor", 11p-B-12.						
		SHINNO, H., "Ellipsometric Measurements of Silicon Surfaces During Oxidation in R.F. Plasma", 11p-B-13.						
		MAEKAWA, M., et al., "Effect of H2SO4 Boiling on Silicon Surface", 11p-B-14.						
				assisted Impurity Doping for ULS				
				trial Processing Induced by Elect				
		Institute of Electronics,	55 Total Managemei	nt System for VLSI Manufacturing nmunications Engineers, Matsush	i, 1994 Spr iita Electric	ing Conterence of the c Industrial Co., Ltd.		
				nealing of Ar' Implanted Damage				
				es of High Energy Boron-Implante				
		SHIMIZU, N., et al., "E	fects of n+ Layer Fo	ormation on Junction Leakage Cu plantation", 30p-ZK-4.	rrent Using	High Energy Ion		
		EXAMINER		DAT	E CONSIDE	ERED		
				03/11/2010				

| George Fourson | 03/11/2010 |
"EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant,

1 Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 9 OF 13 ATTY, DOCKET NO. SERIAL NO 061282-0234 INFORMATION DISCLOSURE Serial No. 10/574,863 STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) FILING DATE GROUP April 6, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S CITE Document Number Publication Date Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS NO MM-DD-YYYY Document Relevant Passages or Relevant Number-Kind Codes or Am Figures Appear US OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, **EXAMINER'S** INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE NO published. KINOSHITA, K., et al., "Optical Property Change of Silicon In Low Energy Ion Implantation (II)", 28a-ZW-8. MIZUNO, B., et al., "A Sputtering Effect During the Ion Implantation with Low Energy", 28a-ZW-9. KAGAWA, K., et al., "Effect of Charging During Ion Implantation on Devices", 28a-ZW-10. MURAKOSHI, A., et al., " Formation of Ultra Shallow Diffusion Layer by Ultra Low Energy Ion implantation", 25p-ZN-MiZUNO, B., et al., "Plasma Doping Method", 26p-ZN-11. FUKUDA, K., et al., "Fabrication of Ultra Shallow Junction by Spin-on Glass SiO2 Film" 26p-ZN-12. ISHII, M., "Quantitative Analysis of rare-Gas ion Bombardment Damage of Si Surface using XPS", 26p-ZP-6. TAKASE, M., et al., "Evaluation Method of Hifh concentration Profile for Low Energy Ion Implantation", 26p-ZP-7. NAKAMURA, T., et al., " Influence of simultaneously implanted As+ ions on diffusivity and activation efficency of B atoms implanted into silicon", 26p-ZP-8. AKIYAMA, H., et ai., "The life-time control technique for power devices using high-energy heavy ion radiation", 28a-TAKASE, M., et al., "The Indentification of the Region of Ion Implantation Induced Physical Damaged Layer", 28a-P-7. TAMURA, F., et al., "Measurement of the minority carrier lifetime for the SI epitaxial layer", 28a-P-8. MIZUNO, B., et al., "Room Temperature Vapor Phase Doping (RTVD)", 28p-P-4. MIZUNO, B., et al., "Plasma Doping Applicable to sub-1/4 micron PMOS", 28p-P-5. KUJIRAI, H., et al., "Ultra-shallow, low resistance junction formation by solid-phase diffusion of boron from BSG", 28p-P-6. EXAMINER DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

/George Fourson/

03/11/2010

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

10574863 - GAU: 2823 Receipt date: 03/28/2008

INFORMATION DISCLOSURE STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) APPLICANT Yuichiro SASAKI, et al. FILING DATE April 6, 2006 EXAMINER'S INTIALS CITE INTIALS OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S INTIALS OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the arrice (when appropriate), title of the item (book, magazine, published) OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the arrice (when appropriate), title of the item (book, magazine, published) OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the arrice (when appropriate), title of the item (book, magazine, published) TAKASE, M., et al., "Foosage Control by Plassma Emission in Plasma Doping Process," 7s-P-2. MURAKAMI, E., et al., "Formation of Uttrashaltow Junctions by Selective & Doping Technique", 7s-P-3. KYOTA, Y., et al., "Foosage Control by Plassma Emission in Plasma Doping Process," 7s-P-2. SHIMADA, N., et al., "Shallow Junction, Formation by Peytytomic Cluster fon implantation", 2sa-G-3. SHIMADA, N., et al., "Shallow Junction, Formation by Powenerry implantation", 2sa-G-3. SHIMADA, N., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-3. NISHIDA, S., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-3. NISHIDA, S., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-3. NISHIDA, S., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-3. NISHIDA, S., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-4. NISHIDA, S., et al., "Shallow Junction Formation by Decaborans to in impantation", 2sa-G-4. NISHIDA, S., et al., "Excitation cross sections for the resonance states of t							SHEET 1	0 OF
(Substitute for form 1449/PTO) VIICHIPO BATE April 6, 2006 GROUP April 6, 2006 U.S. PATENT DOCUMENTS EXAMINER'S INTIALS CITE INTIALS CITE INTIALS CITE Occument Number Number-Kind Codes process MM-DD-YYYY Name of Patentse or Applicant of Cited Document Name of Patentse or Applicant of Cited Document Pages, Cciums, Lines, Will Relevant Passassas Relevant Passassas Relevant Passassas Relevant Passassassas Relevant Passassassas Relevant Passassassassassassassassassassassassass								
EXAMINERS CITE INITIALS CITE INITI						al.		
EXAMINERS NOTHER ART (Including Author, Tile, Date, Pertinent Pages, Etc.) TOTHER ART (Including Author, Tile, Date, Pertinent Pages, Etc.) TOTHER ART (Including Author, Tile, Date, Pertinent Pages, Etc.) TOTHER ART (Including Author, Tile, Date, Pertinent Pages, Etc.) EXAMINERS Include name of the author (in CAPITAL LETTERS), lite of the article (when appropriate), tills of the item (book, magazine, published.) TAKASE, M., et al., "Totages Control by Plasma Emission in Plasma Doping Process", 7a-P-2. MINTALS MINTALS MINTALS TAKASE, M., et al., "Tomation of Ultrashallow Junctions by Sb Selective \$ Doping Technique", 7a-P-3. KIYOTIA, Y., et al., "The Role of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Fallow Junctions of Shallow SourceFordinal Junction Patients and Shallow SourceFordinal Junction Patients and Shallow SourceFordinal Junction Patients (Pages). SHIMADA, N., et al., "Shallow Junction Formation by Postaebrane for Impaniation (IV)", 2a-G-1. MINELIA, A., et al., "Shallow Junction Formation by Decaborane for Impaniation (IV)", 2a-G-1. MINELIA, A., et al., "Shallow Junction Formation by Ozakovania Junction Father and		(Sub:	stitute for form 1449/PTO)					
NO. Number-Kind Codes praces MM-DD-YYYY US OTHER ART (Including Author, Tile, Date, Pertinent Pages, Etc.) EXAMINER'S INITIALS CITE Journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(e), publisher, city and/or country where publisher. TAKASE, M., et al., "Formation of Ultrashation in Plasma Doping Process", 7a-P-2. MURAKAMI, E., et al., "Formation of Ultrashation sunctions by Selective 3 Doping Process", 7a-P-2. MURAKAMI, E., et al., "Formation of Ultrashation sunctions by Selective 3 Doping Process", 7a-P-2. KIYOTA, Y., et al., "Feblication of Low Sheet Resistance and Shaltow Source/Drain Junction with Plasma Doping Process", 2sa-O-2. SHIMADA, N., et al., "Fablication of Low Sheet Resistance and Shaltow Source/Drain Junction with Plasma Doping Process", 2sa-O-2. SHIMADA, N., et al., "Shallow Junction, Formation by Polystomic Cluster for Implantation", 2sa-G-3. SHIMADA, N., et al., "Fablicow Junction Formation by Decaborane for Implantation", 2sa-G-3. SHIMADA, N., et al., "Fablicow Junction Formation by Decaborane for Implantation", 2sa-C-14. TAKASE, M., et al., "High Accivation Ultra Shaltow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NISHIOA, S., et al., "Tomation of a progenic current measuring device using a SQUIP for Invahination", 3a-PC-14. TAKASE, M., et al., "High Accivation Ultra Shaltow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NISHIOA, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-9. HARUYAMA, Y., et al., "Full Medication Analysis System", The Institute of Electronics, Information and Communication Engineers (EICC) Electronics Society Annual Meeting, 1995.			U	S. PATENT	DOCUMENTS			
EXAMINER'S INTIALS Include name of the author (in GAFFIAL LETTERS), tills of the article (when appropriate), tills of the item (book, magazine, lournal, serial, symposium, catalog, etc.), date, page(f), volume-fessee number(f), publisher, only and/or coording where published. TAKASE, M., et al., "Dosage Control by Plasma Emission in Plasma Doping Process", 7a-P-2. MURAKAMI, E., et al., "Formation of Ultrashallow Junctions by Sis Selective 8 Doping Technique", 7a-P-3. KIYOTA, Y., et al., "The Roke of Hydrogon during Rapid Vapor-phase Doping Analyzed by Fifth, 7a-P-4. TAKASE, M., et al., "Fabrication of Low Sheet Resistance and Shallow Source/Drain Junction with Plasma Doping Process", 2s-P-2. SHIMADA, N., et al., "Shallow Junction, Formation by Polystomic Cluster fon Implantation", 2s-Q-3. SHIMADA, N., et al., "Shallow Junction Formation by Polystomic Cluster fon Implantation", 3s-PC-14. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane to in Impantation (IV)", 3s-PC-13. MINEUI, A., et al., "Shallow Junction Formation by Decaborane to in Impantation", 3s-PC-14. TAKASE, M., et al., "High resolution measurement of Neth "dissociative recombination with upper-conductor HARDING, S., et al., "the Netrogo correction revisited", 7a-YP-9. HARUYAMA, Y., et al., "Fight resolution measurement of Neth "dissociative recombination with upper-conductor HARDING, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-1. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-1. NAKABAYASH, et al., "Edit Bit map Correction hashs shared", "Elfo Monference, 1987, IEEE. NAKATA, K., et al., "Edit Bit map Correction hashs shared", "Elfo Monference, 1987, IEEE. NAKATA, K., et al., "Edit Bit map Correction hashs shared", "Elfo Monference, 1987, IEEE. EXAMINER						ited	Relevant Passages or R	
EXAMINERS Include name of the author (in CAPITAL LETTERS), lite of the article (when appropriate), (lite of the litem (book, magazine, published.) TAKASE, M., et al., "Formation of Ultrashallow Junctions by Sb Selective 3 Doping Technique", 7a-P-2. MURAKAMI, E., et al., "Formation of Ultrashallow Junctions by Sb Selective 3 Doping Technique", 7a-P-3. KIYOTIA, Y., et al., "the Role of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Faller of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Faller of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Faller of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Faller of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. SHIMADA, N., et al., "Faller of Hydrogen during William of Hydrogen during Shimadon, Yal., et al., "Faller of Hydrogen of Hydrogen during Shimadon, Yal., et al., "Shallow Junction Formation by Oscaborane for Imparation (TV), 2a-G-3. MINEJI A., et al., "Shallow Junction Formation by Oz Extv-single B lon Implantation", 2a-P-C-13. MINEJI A., et al., "Shallow Junction Formation by Oz Extv-single B lon Implantation", 3a-P-C-14. TAKASE, M., et al., "England Activation Ultras Rabilow SourceDrian Junction Fabricated by Pissan Bonjong", 3a-P-C-15. NISHIGA, S., et al., "Shallow Junction Formation Junction Fabricated by Pissan Bonjong", 3a-P-C-15. NISHIGA, S., et al., "Shallow Junction Formation Junction Fabricated by Pissan Bonjong", 3a-P-C-14. TAKASE, M., et al., "Shallow Junction Formation Junction Fabricated by Pissan Bonjong", 3a-P-C-15. NISHIGA, S., et al., "Shallow Governer Harving States and Shallow SourceDrian Junction Fabricated by Pissan Bonjong", 3a-P-C-14. TAKASE, M., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-9. HARUYAMA, Y., et al., "High resolution measurement of Heff dissociative recom		i -	US .					
INITIALS CITE Journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where publisher. TAKASE, M., et al., "Formation of Ultrashallow Junctions by Sb Selective S Doping Process", 7a-P-2. MURAKAMI, E., et al., "Formation of Ultrashallow Junctions by Sb Selective S Doping Process", 7a-P-2. KIYOTA, Y., et al., "Refoot of Hydrogen during Rapid Varop-phase Doping Analyzed by Finking, 7a-P-4. TAKASE, M., et al., "Fabrication of Low Sheet Resistance and Shallow Source/Drain Junction with Plasma Doping Process", 28a-G-2. SHIMADA, N., et al., "Shallow Junction, Formation by Polystomic Cluster fon Implantation", 29a-G-3. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane fon Implantation", 29a-G-4. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane fon Implantation", 29a-G-4. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane fon Implantation", 3a-PC-114. MINEJI, A., et al., "Shallow Junction Formation by Decaborane fon Implantation", 3a-PC-15. NISHIDA, S., et al., "The Herrory Correction revisited", 7a-YP-8. ONO, S., et al., "Design of a cryogenic current measuring device using a \$50UI for low-intensity beams", 7a-YP-9. HARUYAMA, Y., et al., "Figh resolution measurement of Herl' dissociative recombination with superconductor dectron cooter", 7a-YP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAKABAYSH, et al., "Elith From Focusing on this pseed and low electric power techniques, Finally the Cu damasscene techniques for practical applications has arrived", IEDM Conference, 1997, IEEE. NAKATA, K., et al., "Fall Rima po Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (EliCE) Electronics Society Annual Meeting, 1998.								
MURAKAMI, E., et al., "Formation of Ultrashallow Junctions by Sb Selective & Doping Technique", 7a-P-3. KYYOTA, Y., et al., "the Role of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIR-ATR, 7a-P-4. TAKASE, M., et al., "Eabrication of Low Sheet Resistance and Shallow Source/Drini Junction with Plasma Doping SHIMADA, N., et al., "Shallow Junction, Formation by Polyatomic Cluster for Implantation", 29a-G-3. ISHIKADA, N., et al., "Shallow Junction Formation by Polyatomic Cluster for Implantation", 29a-G-3. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane for Implantation (IV)", 3a-PC-13. MINEUI, A., et al., "Shallow Junction Formation by Oz ExeV-single B Ion Implantation", 3a-PC-14. TAKASE, M., et al., "High Activation Ultra Shallow SourcePoinal Junction Patricated by Plesma Doping", 3a-PC-15. NISHIDA, S., et al., "the Herzog correction revisited", 7a-YP-8. ONG, S., et al., "Design of a cryogenic current measuring device using a \$50UI for Iow-intensity beams", 7a-YP-9. HARUYAMA, Y., et al., "High resolution measurement of Heif dissociative recombination with superconductor electron Cooler", 7a-YP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron Impact", 7a-YP-11. WAKABAYASH, et al., "Elith Focusing on high speed and low electric power techniques, Finally Science technique for practical applications has arrived", IEDM Conference, 1997, IEEE. NAKATA, K., et al., "Fall Bit map Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1998. EXAMINER			journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
KYOTA, Y., et al., "the Role of Hydrogen during Rapid Vapor-phase Doping Analyzed by FTIRATE, 7s.P-4. TAKASE, M., et al., "Tabrication of Low Sheet Resistance and Shallow Source/Drain Junction with Plasma Doping Process", 28-6-6. SHIMADA, N., et al., "Shallow Junction, Formation by Polystomic Cluster for implantation", 29a-6-4. SHIMADA, N., et al., "Formation of shallow junctions by becaborane lon impantation", 29a-6-4. SHIMADA, N., et al., "Shallow Junction Formation by Decaborane lon impantation", 29a-6-4. MINEUJ, A., et al., "Shallow Junction Formation by Decaborane lon impantation", 29a-6-4. ITAKASE, M., et al., "Shallow Junction Formation by Decaborane lon impantation", 29a-6-15. NINEUJ, A., et al., "Shallow Junction Formation by Decaborane lon impantation", 29a-6-14. TAKASE, M., et al., "High Activation Ultra Shallow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NINEUJ, A., et al., "High Activation Ultra Shallow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NINEUJ, A., et al., "High Activation Ultra Shallow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NINEUJ, A., et al., "High Activation Ultra Shallow Source/Drain Junction Fabricated by Plasma Doping", 3a-PC-15. NINEUJ, A., et al., "High Activation Ultra Shallow Source/Drain Value		-						
TAKASE, M., et al., "Fabrication of Low Sheet Resistance and Shallow Source/Orain Junction with Plasma Doping Process," 289-0.2. SHIMADA, N., et al., "Shallow Junction, Formation by Polyatomic Cluster ion Implantation", 28-6-3. SHIKADA, N., et al., "Shallow Junction, Formation by Polyatomic Cluster ion Implantation", 28-6-4. SHIKADA, T., et al., "Shallow Junction Formation by Detaborane lon Impantation", 73-PC-14. NINEJI, A., et al., "Shallow Junction Formation by Detaborane lon Impantation", 73-PC-15. NISHIDA, S., et al., "Shallow Junction Formation by D. 2 keV-single B lon Implantation", 73-PC-14. TAKASE, IM., et al., "Shallow Junction Formation by D. 2 keV-single B lon Implantation", 73-PC-14. NISHIDA, S., et al., "the Herzog correction revisited", 73-YP-3. ONO, S., et al., "Design of a Croppanic current measuring device using a SCUID for lore-intensity beams", 73-YP-9. HARUYAMA, Y., et al., "High resolution measurement of Helf' dissociative recombination with superconductor effection cooler", 74-YP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 73-YP-11. WAKABAYASHI, et al., "EXECUTED recovering on Implantation and Communication Engineers (EICE) Electronics Society Annual Meeting, 1955. EXAMINER		 						
ISHKAWA, T., et al., "Formation of shallow junctions by tow-energy implantation", 29a-G-4. ShilhADA, N., et al., "Shallow Junction Formation by Decaborate ion impantation (IV)", 3a-PC-15. MINED, J.A., et al., "Shallow Junction Formation by D2 2xiV-single B lost implantation", 3a-PC-14. TAKASE, M., et al., "High Activation Ultra Shallow SourceOrata Junction Fabricated by Pilsams Doping", 3a-PC-15. NISHIGA, S., et al., "He Herzog correction revisited", "A'P-8. ONG, S., et al., "Design of a cryopenic current measuring device using a SQUID for low-intensity beams", "Ta-YP-9. HARUYAMA, Y., et al., "High resolution measurement of Her" dissociative recombination with superconductor TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAYABAYASHI, et al., "EXCITATION processing on high speed and low electric power techniques, Finally the Cu damascene technique for practical applications has arrived", IEDM Continence, 1997, IEEE. NAKAYA, K., et al., "Eal It map Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (IEICE) Electronics Society Annual Meeting, 1993. EXAMINER			TAKASE, M., et al., "Fabrication of Low Sheet Resistance and Shallow Source/Drain Junction with Plasma Doping					
SHIMADA, N., et al., "Shallow Junction Formation by Decaborane ton Impartation (IV)", 3a-PC-13. MINEJI, A., et al., "Shallow Junction Formation by O.2 keV-single B lon Implantation", 3a-PC-14. TAKASS, IM., et al., "High Activation Uitra Shallow Source/Drain Junction Fabricated by Pissma Deping", 3a-PC-15. NISHIDA, S., et al., "the Herzog correction revisited", "a "VP-3. ONO, S., et al., "Design of a cryogenic current measuring device using a SCUID for low-intensity beams", 7a-YP-3. HARUYAMA, Y., et al., "High resolution measurement of Helf dissociative recombination with superconductor effection cooler", 7a-YP-10. TSURUBUCHI, S., et al., "Exitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAKASAYASHI, et al., "EDM Focusing on high speed and low electric power techniques, Finally the Cut amascene technique for practical applications has arrived", IEDM Conference, 1997, IEEE. NAKATA, K., et al., "Eal Rimp Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1995. EXAMINER			SHIMADA, N., et al.,	"Shallow Junction, I	Formation by Polyatomic Cluster ion	Implan	tation", 29a-G-3.	
MINEJI. A., et al., "Shallow Junction Formation by 0.2 keV-single B Ion Implantation", 3a-PC-14. TAKASE, M., et al., "High Activation Ultra Shallow Source/Drah Junction Fabricated by Pissma Doping", 3a-PC-15. NISHIDA, S., et al., "the Herzog correction revisited", "A*P-8. ONO, S., et al., "Design of a cryoganic current measuring device using a SQUID for low-intensity beams", 7a-YP-9. HARUYAMA, Y., et al., "Figh resolution measurement of Hef" issociative recombination with superconductor electron coeler", 7a-YP-10. TSURUBUCHI, S., et al., "Ecitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAKABAYASHI, et al., "EICM Focusing on high speed and low electric power techniques , Finally the Cu damascene technique for practical applications has arrived", (EDC Inderects, 1937). (EEE. NAKATA, K., et al., "Fall strap Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1935. EXAMINER								
TAKASE, M., et al., "High Activation Ultra Shallow SourceOrain Junction Expiricated by Plasma Opping", 3e-PC-15. NISHIDA, S., et al., "the Herzog correction revisited", "A-YP-8. ONO, S., et al., "Design of a cryogenic current measuring device using a SQUID for low-intensity beams", 7a-YP-9. HARUYAMA, Y., et al., "High resolution measurement of Helf dissociative recombination with superconductor electron coler", 7a-YP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the reconance states of the Ne yelectron impact", 7a-YP-11. WAKABAYASHI, et al., "EXPLAID processing on high speed and low electric power techniques. Finally the Cut amascene technique for practical applications has arrived", IEDM Conference, 1997, IEEE. NAKATA, K., et al., "Fall Bit map Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (BECE) Electronics Society Annual Meeting, 1995. EXAMINER								
NISHIDA, S., et al., "the Merzog correction revisited", 7a-YP-8. ONO, S., et al., "Design of a cryogenic current measuring device using a SQUID for low-intensity beams", 7a-YP-9. HARUYAMA, Y., et al., "flip resolution measurement of Her? dissociative recombination with superconductor electron cooler", 7a-YP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAKABAYASHI, et al., "EDM Focusing on high speed and flow electric power sectiniques. Finally the Cu damascene section in the section of the resonance states of the Ne by electron impact", 7a-YP-11. WAKABAYASHI, et al., "EDM Focusing on high speed and flow electric power sectiniques. Finally the Cu damascene section in the section of								
ONO, S., et al., "Design of a cryogenic current measuring device using a SQUID for low-intensity beams", "7xYP-9. HARUYAMA, Y., et al., "High resolution measurement of HeN" dissociative recombination with superconductor TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the Ne by electron impact", 7a-YP-11. WAYABAYASHI, et al., "EIDM Focusing on high speed and low electric power techniques, Finally the Cu damascene technique for practical applications has arrived", IEDM conternors, 1937, IEEE. NAKATA, K., et al., "Eall Rims pCorrelation Analysis System", The Institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1935. EXAMINER								
HARUYAMA, Y, et al., "High resolution measurement of Helf "dissociative recombination with superconductor electron cooler," 2-PP-0.0 TSURUBUCHI, S, et al., "Excitation cross sections for the resonance states of the Ne by electron impact," 7a-VP-1.1 WAKABAYASHI, et al., "Excitation cross sections for the resonance states of the Ne by electron impact," 7a-VP-1.1 WAKABAYASHI, et al., "East focusing on high speed and low electric power techniques, Finally the Cu damascene technique for practical applications has arrived", IEDM Conference, 1997, IEEE. NAKATA, K, et al., "Est It map Correlation Analysis System", The Institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1998. EXAMINER		<u> </u>						
electron cooler", 7a*PP-10. TSURUBUCHI, S., et al., "Excitation cross sections for the resonance states of the No by electron impact", 7a*YP-11. WAKABAYASHI, et al., "ElbM Focusing on high speed and low electric power techniques , Finally the Cu damascene technique for practical applications a sirved"; [EIDF Conference, 1937]. Elbert Conference, 1937 Elbert Conf		├						
WAKABAYASHI, et al., "EDM Focusing on high speed and low electric power techniques, Finally the Cu damascene technique for practical applications has arrived", EDM Conference, 1997, IEEE. NAKATA, K., et al., "Fail Bit map Correlation Analysis System", The institute of Electronics, Information and Communication Engineers (EICE) Electronics Society Annual Meeting, 1995. EXAMINER			electron cooler", 7a-YP-10.					
technique for practical applications has arrived", IEDM Conference, 1997, IEEE NAKATA, K., et al., "Fail Bit map Corration Analysis System", The Institute of Electronics, Information and Communication Engineers (IEICE) Electronics Society Annual Meeting, 1995. EXAMINER EXAMINER								
Communication Engineers (IEICE) Electronics Society Annual Meeting, 1995. EXAMINER DATE CONSIDERED			technique	for practical applica	ations has arrived", IEDM Conference	, 1997,	IEEÉ.	
			NAKATA, K., et al., "Fall Commun	Bit map Correlation Ication Engineers (I	Analysis System", The Institute of E EICE) Electronics Society Annual Me	lectron eting, 1	lcs, Information and 1995.	
/George Fourson/ 03/11/2010			/George Fourson/			ONSID	ERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 11 OF 13 ATTY, DOCKET NO SERIAL NO INFORMATION DISCLOSURE 061282-0234 Serial No. 10/574.863 STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) FILING DATE GROUP April 6, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Document Number Publication Date Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS NO Number-Kind Codes arker MM-DD-YYYY Document Relevant Passages or Relevant Figures Appear OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, **EXAMINER'S** INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE published. NO TSUBO, Y., et al., "Diffusion of Phosphorus from P-doped Polysilicon through Ultrathin siO2 into Si Substrate", 30p-ZP.11. AOYAMA, T., et al., "Boron Diffusion in Silicon Dioxide in the Presence of Hydrogen and Fluorine", 30p-ZP-12. TAKASE, M., et al., "Effect of oxide thickness on boron profile in the plasma doping process", 30p-ZP-13. MIZUNO, B., et al., "Plasma Doping", Invitational Lecture. TAKASE, M., et al., "Plasma doping Technology for the MOS transistor with a channel length below 0.15 µm", Applied Physics, 1999, Vol. 68 No. 5. SASAKI, Y., et al., "Nondestructive Beam Current Monitor Using DC SQUID", pages 68-76. KOBAYASHI, K., et al., "Three-Dimensional Plasma Doping for Beam-Channel Transistor", 29p-ZG-13, Preprints of the 51st Spring meeting of the Japan Society of Applied Physics and Related Societies, March 2004, Tokyo University of Technology. SATO. T., et al., "Effect of wet cleaning treatment on dose of impurity after plasma doping", 29p-ZG-14, Preprints of the 51st Spring meeting of the Japan Society of Applied Physics and Related Societies, March 2004, Tokyo University of Technology. TAKAGI, K., et al., "Profile control by Helium plasma treatment in plasma doping method", 29p-ZG-15, Preprints of the 51st Spring meeting of the Japan Society of Applied Physics and Related Societies, March 2004, Tokyo University of Technology. OKASHITA, K., et al., "In-situ Plasma Pre-amorphization for Shallow Junction Formation", 3p-P10-14, Preprints of the 65th Meeting of the Japan Society of Applied Physics and Related Societies, September 2004, Tohoku Gakuin University. NAKAZAWA, H., et al., "Characterization of Boron/Phosphorus Layer by Cold/Heat Ion Implantation", 3p-P10-15, Preprints of the 65th Meeting of the Japan Society of Applied Physics and Related Societies, September 2004, Tohoku Gakuin University. KOBAYASHI, K., et al., "Doping Profile Evaluation for Three-Dimensional Transistor", 3p-P10-16, Preprints of the 65th Meeting of the Japan Society of Applied Physics and Related Societies, September 2004, Tohoku Gakuin University. OTAKAGI, K., et al., "Effect on Impurity profile of Helium Plasma Treatment on a Plasma Doping Method", 65th Japan Society of Applied Physics Symposium Collection of Lectures, September 2004, Tohoku Graduate Department. SAUDDIN, H., et al., "Leakage Current in Mesa-type p+/n, Junctions Formed by Plasma Doping", 10a-A-10, PerPreprints of the 56th Meeting of the Japan Society of Applied Physics, 2005, Tokushima University. FUKAGAWA, Y., et al., "Electrical Properties of ultra-Shallow p+ Layers Formed by Plasma Doping", 10a-A-11, PerPreprints of the 66th Meeting of the Japan Society of Applied Physics, 2005, Tokushima University. MATSUDA, T., et al., "Chemical Bonds of Boron Atoms Implanted in A Silicon Surface by Plasma Doping", 10a-A-12, PerPreprints of the 66th Meeting of the Japan Society of Applied Physics, 2005, Tokushima University. EXAMINER DATE CONSIDERED /George Fourson/ 03/11/2010

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant,

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET 12 OF 13 ATTY, DOCKET NO. SERIAL NO. 061282-0234 INFORMATION DISCLOSURE Serial No. 10/574.863 STATEMENT BY APPLICANT APPLICANT Yuichiro SASAKI, et al. (Substitute for form 1449/PTO) FILING DATE GROUP April 6, 2006 2823 U.S. PATENT DOCUMENTS EXAMINER'S Document Number Publication Date Name of Patentee or Applicant of Cited Pages, Columns, Lines, Where INITIALS NO MM-DD-YYYY Documen Relevant Passages or Relevant Number-Kind Codes arass Figures Appear OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) EXAMINER'S Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where CITE NO. nublished MIZUNO, B., et al., "Reduction of lattice defect in SI layer on buried oxide by implantation of hydrogen,", SDM 87-169, Basic Research Lab., Semiconductor Research Center, Matsushita Electric industrial Co., Ltd. MIZUNO, B., et al., "ECR Plasma Doping", SDM 88-95, Semiconductor Research Center, Semiconductor Basic Research Lab., Matsushita Electric Industrial Co., Ltd. MIZUNO, B., et al., "ECR Plasma Doping", Electronic Material, December 1987. MIZUNO, B., "Plasma Doping Technology", Semiconductor Research Center, Matsushita Electric Industrial Co., Ltd. NAKADA, K., et al., "D-259 Development of Cleanroom Auto Control System", 1994 Spring Conference of the Society of Electronic information and Communications. MIZUNO. B., et al., "Behavior of implanted ions Near the Surface - Outer Diffusion and Self-sputtering", 28p-ZL1. YAMANISHI, Y., et al., "Behavior during Oxidation of Nitrogen Introduced by ion Implantation", 28p-ZL2. ZAIZU, Y., et al., " Effects of Silicon Nitride Films on Boron Enhanced Diffusion and Crystalline Defects due to Boron Implantation", 28p-ZL3. MIZUNO, B., et al., "Behavior near Surface of implanted ions (cont'd) Self-sputtering and Back-scattering", 20p-ZE-KINOSHITA K., et al., "Optical Changes in Association with Crystalline Damage due to Low Energy Ion implantation (IV)". 20p-ZE-12. HASEGAWA, K., et al., "Dual Species (B, As) Implantation in Silicon", 28p-ZE-13. SATO, T., et al., "Dose Volume changes and HF Cleansing Before and After Plasma Doping Change dose caused by HF treatment before and after plasma doping", 1a-A-11, 64th Applied Physics Lecture Series-Lecture Manuscripts, 2003, Fukuoka University. SUSUKI, K., "High Tilt Angle Ion Implantation in Polycrystalline Si, High tilt angle Ion Implantation into Polycrystalline silicon", 1p-A-1, 64th Applied Physics Lecture Series- Lecture Manuscripts, 2003, Fukuoka University. YAMADA, M., et al., "Evaluation of Junction Leak Current Caused by Element Isolation Stress, Study of junction leakage currents induced by the stress of shallow trench isolation", 1p-A-2, 64th Applied Physics Lecture Series-Lecture Manuscripts, 2003, Fukuoka University. AIBA, I., et al., "Dose Variation by Chemical Cleaning Process after Plasma Doping", 3p-P10-18, 65th Japan Society of Applied Physics Symposium Collection of Lectures, September 2004, Tohoku Graduate Department. MAJIMA, M., et al., "Hall Effect Measurement of ultra Shallow p*n Junctions formed by Plasma Doping", 3p-P10-19, 65th Japan Society of Applied Physics Symposium Collection of Lectures, September 2004, Tohoku Graduate Department. MASUDA, T., et al., "Amorphization of Large-scale Silicon Substrate by using hybrid Quantum Chemical Molecular Dynamics Method", 1a-YE-7, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saltama University. FUKUGAWA, Y., et al., "Examination of pre-amorphous layer formation process by He plasma Irradiation", 1a-YE-8, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saitama University. AIBA, I., et al., "Plasma Doping on SI substrates with Resist Patterns", 1a-YE-9, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saltama University. FXAMINER DATE CONSIDERED /George Fourson/ 03/11/2010

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached.

SHEET	<u>13</u>	OF	13

		TION DISCLOS		061282-0234	1 '	rial No. 10/574,8	63	
				APPLICANT Yuichiro SASAKI, et al.				
	(Sub	stitute for form 1449/PTO)		FILING DATE April 6, 2006	GR0 28:			
		τ	S. PATENT	DOCUMENTS				
EXAMINER'S INITIALS	NO.	Document Number Number-Kind Codez (V Ancount)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document Pages, Columns, Link Relevant Passages or Figures Appe				
	Ь	OTHER A	RT (Including Author,	Title, Date, Pertinent Pages, Etc.)				
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (took, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
		OKASHITE, K., et al., "Ultra Shallow Junction Formation with Plasma Doping and Spike RTA", 1a-YE-10, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saltama University.						
		SAUDDIN, H., "Leakage Current Characteristics of Ultra-shallow p+in Junctions Formed by Plasma Doping", 1a-YE- 11, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saltama University.						
		MATSUNO, A., et al., "One Dimensional Thermal Diffusion Simulation for the USJ formation by green laser anneal with absorption layer", 16-YE-1, 52nd Japan Society of Applied Physics Symposium Collection of Lectures, 2005, Saltama University.						
		MIZUNO, B., et al., "ECR Plasma Doping", Matsushita Electric Industrial Co., Ltd.						
		HIGAKI, R., et al., "Effects of gas phase absorption into SI substrates on plasma doping process".						
	LENOBLE, D., et al., "Fabrication of 60-mm plasma doped CMOS translators", 2002, IEEE. SEVERI, S., et al., "Diffusion-less junctions and super halo profiles for PMOS translators formed by SPER and FUSI quies and the profiles of the profiles for profil							
	-	EXAMINER		DATE	CONSID	ERED		
		/George Fourson/		03/11/201	0			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered.

WDC99 1538512-1.061282.0234

Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached.